Answers to Questions about the Dam Breach Analysis RFP

Q. Please further define UTM coordinates (i.e., Latitude/Longitude, Iowa State Plane, etc.) as mentioned in Section 3, page 10, 3.2.3.

A. UTM (Universal Transverse Mercator Grid) is a convenient way to identify points on the curved surface of the earth. This grid system (originally developed by the military) is used on USGS topographic maps and most GPS units can be programmed to determine UTM coordinates. Iowa is mostly within UTM Zone 15 (NAD83). UTM coordinates for any structure for which this contract calls for such coordinates must be obtained in the field using a GPS device. The UTM grid is not the same as the state plane system.

Q. Are the drainage area, originally computed runoff curve number and time of concentration simply being provided for our information rather than for mandatory inclusion in establishment of current basin hydrology?

A. The basic watershed parameters are being provided for your information. They should be considered a starting point in developing the basin hydrology. A check of these parameters should be made to ascertain that they are still appropriate for current watershed conditions. The stage-storage data will not need to be checked.

Q. How many dams in the upstream watershed that should be taken into consideration exist for each of the dams under review? For example, a cursory review of the topographic map for the Leisure Lake Dam shows approximately 10 upstream impoundments of various sizes. Will all, some, or none of these need to be considered in developing basin hydrology?

A. Only dams that have been permitted by the Iowa DNR and would have significant influence on the basin hydrology will need to be considered. In this group of 10 dams, only the Lake Anita watershed has any dams that will need to be considered in developing the rainfall/ runoff model. There are four dams in the Lake Anita watershed.

Q. Does the Iowa DNR have a list of existing data for these dams, i.e., existing survey data below the dams and hydrologic models?

A. It should be assumed that there is no downstream survey data for any of the dams. For all dams the department has and will provide to the contractor the following information: runoff curve number, time of concentration, drainage area, stage-storage data to the top of dam elevation and the presumed downstream hazard classification. A hard copy of the original flood routings should be available for most dams. A set of design plans will be made available to the contractor.

The following information provides a basic idea as to the size of each structure.

Dam Name	Height (feet)	Max. Storage (acre-feet)	Surface Area @ Normal Pool (acres)	Drainage Area (sq. miles)
Lake Anita Dam	53.	4000.	171.	3.9
Lake Sundown Dam	51.	12,640.	440.	21.7
Leisure Lake Dam	58.	2130.	55.	4.2
Woodland Lake Estates Dam	43.	723.	29.	1.2
Marion County Roadgrade Dam	40.	1144.	41.	4.4
Lake Ponderosa Dam	53.	7650.	290.	6.6
Anderson Dam	30.	37.	3.3	0.1
VanBuren Dam	30.	67.	4.0	0.3
Izaak Walton Dam	35.	191.	10.8	0.4
Findley1 Dam	39.	92.	4.5	0.5